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## Search for neutral Higgs Bosons Production in Final States with b-quarks

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The standard model (SM) has been very successful in describing the phenomenology of the electroweak and strong interactions. The discovery of a Higgs boson consistent with the SM prediction at the LHC in 2012 was a major achievement. However, the SM does not answer fundamental questions. Therefore, great efforts have been made by experimental groups in order to search for new physics. Theorists have been proposing models allowing the existence of new interactions and particles, such as additional Higgs bosons in the minimal supersymmetric model (MSSM) and two-higgs-doublet model (2HDM). A search for new Higgs bosons produced in association with bottom quarks and decaying into a bottom anti-bottom quark pair is performed with the CMS detector. The data collected for this analysis were recorded in proton-proton collisions at a centre-of-mass energy of 13 TeV in 2016, corresponding to an integrated luminosity of 35.7 fb<sup>-1</sup>. No signal excess above the standard model background is observed. Stringent upper limits on the cross section times branching fraction are calculated for Higgs states with masses up to 1300 GeV at 95% confidence level. The results are also interpreted within several MSSM and 2HDM scenarios.

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